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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,657	03/19/2004	Donald J. Lewis	FGT 223D2 (81099029)	1677
36865	7590	08/09/2005	EXAMINER	
ALLEMAN HALL MCCOY RUSSELL & TUTTLE, LLP			SOLIS, ERICK R	
806 S.W. BROADWAY, SUITE 600			ART UNIT	
PORTLAND, OR 97205			PAPER NUMBER	

3747

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,657

Applicant(s)

LEWIS ET AL.

Examiner

Erick R. Solis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1,7,9,11,16,18-20,26,28-30,32-35, and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al (US Pat. No. 6332446) in view of Sono et al (US Pat. No. 5765514). Matsumoto et al teaches an internal combustion engine having electromagnetically controlled valves which may operate in a multi-stroke mode and in which certain cylinders may be deactivated. Matsumoto et al, however, does not teach adjusting the number of valves that operate based on at least an operating condition of at least an electromechanical valve. Sono et al teach an engine having electromagnetically controlled valves wherein when an abnormal condition exists in one of the electromagnetically actuated

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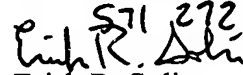
valves, the valves of that cylinder are shut off and the cylinder is deactivated. It would have been obvious to one of ordinary skill in the art to have incorporated the teaching of Sono et al into Matsumoto et al because this would have provided a safety feature which would have protected Matsumoto's engine from damage when the valves were not operating correctly.

4. Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al (US Pat. No. 6332446) in view of Di Lieto et al (US Pat. No. 6390038). Matsumoto et al teaches an internal combustion engine having electromagnetically controlled valves which may operate in a multi-stroke mode and in which certain cylinders may be deactivated. Matsumoto et al, however, does not teach adjusting the number of valves that operate based on at least an operating condition of at least an electromechanical valve. Di Lieto et al et al teach an engine having electromagnetically controlled valves wherein when an abnormal condition exists in one of the electromagnetically actuated valves, the valves of that cylinder are shut off and the cylinder is deactivated. Di Lieto teaches determining that the electromagnetic actuators, (coil, armature, core) are overheating based on a current measurement and current temperature value. Note that current would be indicative of impedance and power consumed. It would have been obvious to one of ordinary skill in the art to have incorporated the teaching of Sono et al into Matsumoto et al because this would have provided a safety feature which would have protected Matsumoto's engine from damage when the valves were not operating correctly.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick R. Solis whose telephone number is ~~(703) 308-2651~~. The examiner can normally be reached on Monday-Thursday. **571 272 4853**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is ~~(703) 308-0861~~.

571 272 3700

Erick R. Solis
Primary Examiner
Art Unit 3747

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July 28, 2005